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Art Unit: 1644

FAX: (703) 872-9306

FROM: Sheela Mohan-Peterson

DATE: October 14, 2004RE: Docket No.: DX0936KB  
USSN: 10/086,972  
Filed: 03/01/2002  
Title: NOVEL USES OF MAMMALIAN OX2 PROTEIN AND RELATED  
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Documents attached:

1.	Transmittal	1 page
2.	Response to Restriction Requirement	7 pages

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Melanie Lyons

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PTO/SB/21 (03-03)

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<b>TRANSMITTAL FORM</b>  <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/086,972	
	Filing Date	03/01/2002	
	First Named Inventor	Robert M. HOEK	
	Art Unit	1644	
	Examiner Name	I. Ouspenski	
Total Number of Pages in This Submission	9	Attorney Docket Number	DX0936KB

**ENCLOSURES** (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<b>Remarks:</b> 1. Response to Restriction Requirement (7 pages) 2. Fax Transmittal Sheet (1 page)		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual	Sheela Mohan-Peterson, Reg. No. 41,201 DNAX Research, Inc. 901 California Ave. Palo Alto, CA 94304-1104
Signature	<i>Sheela Mohan-Peterson</i>
Date	14-Oct-2004

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Attorney Docket: DX0936KB

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re application of:

Robert M. HOEK, *et al.*

Application No.: 10/086,972

Filed: March 1, 2002

For: NOVEL USES OF MAMMALIAN  
OX2 PROTEIN AND RELATED  
REAGENTS

Examiner: I. Ouspenski

Art Unit: 1644

Conf. No.: 1945

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by:

  
MELANIE LYONSCommissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450RESPONSE TO RESTRICTION REQUIREMENT

Sir:

This is a response to the Restriction Requirement, dated September 17, 2004.

I. Restriction Requirement

The Examiner restricted the application into 26 separate inventions:

- I. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has an inflammatory condition, classified in Class 514, subclass 21.
- II. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has an infective condition, classified in Class 514, subclass 21.
- III. Claims 1, 4 - 8, 10, and 16 - 18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a leukoproliferative condition, classified in Class 514, subclass 21.
- IV. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a neurodegenerative condition, classified in Class 514, subclass 21.

- V. Claims 1, 4-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a posttraumatic condition, classified in Class 514, subclass 21.
- VI. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has autoimmunity, classified in Class 514, subclass 21.
- VII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has atherosclerosis, classified in Class 514, subclass 21.
- VIII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has delayed hypersensitivities, classified in Class 514, subclass 21.
- IX. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has skin grafting or a transplant, classified in Class 514, subclass 21.
- X. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has spinal injury, classified in Class 514, subclass 21.
- XI. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has stroke, classified in Class 514, subclass 21.
- XII. Claims 1, 5-10, and 16-18, drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has ischemia, classified in Class 514, subclass 21.
- XIII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has an inflammatory condition, classified in Class 424, subclass 130.1.
- XIV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has an infective condition, classified in Class 424, subclass 130.1.
- XV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a leukoproliferative condition, classified in Class 424, subclass 130.1.
- XVI. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a neurodegenerative condition, classified in Class 424, subclass 130.1.

- XVII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has a post-traumatic condition, classified in Class 424, subclass 130.1.
- XVIII. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has wound healing, classified in Class 424, subclass 130.1.
- XIX. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is an antibody to OX2, and where the animal has clot formation, classified in Class 424, subclass 130.1.
- XX. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has an inflammatory condition, classified in Class 424, subclass 9.322.
- XXI. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has an infective condition, classified in Class 424, subclass 9.322.
- XXII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has a leukoproliferative condition, classified in Class 424, subclass 9.322.
- XXIII. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has a neurodegenerative condition, classified in Class 424, subclass 9.322.
- XXIV. Claims 1-5, 11-13, 15-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has a post-traumatic condition, classified in Class 424, subclass 9.322.
- XXV. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has wound healing, classified in Class 424, subclass 9.322.
- XXVI. Claims 1-3, 5, 11-16, and 19-20, drawn to a method of enhancing the function of leukocytes in an animal, using an antagonist of OX2, where the antagonist is a mutin of OX2, and where the animal has clot formation, classified in Class 424, subclass 9.322.

## **II. Species Election Requirements**

The Examiner further required several elections of species dependent upon the Group elected by Applicants.

A. If one of Groups I-XXVI is chosen, an election of one of the following species is required: neural tissue; lymphoid tissue; myeloid tissue; pancreas; gastrointestinal tissue; thyroid tissue; muscle tissue; skin; or collagenous tissue.

B. If one of Groups I-XII is chosen, an election of one of the following species is required: tissue specific autoimmunity; rheumatoid arthritis; multiple sclerosis; vasculitis.

C. If one of Groups I-XII is chosen, an election of one of the following species is required: an anti-inflammatory cytokine agonist; an anti-inflammatory cytokine antagonist; an analgesic; an anti-inflammatory agent; or a steroid.

D. If one of Groups XIII-XXVI is chosen, an election of one of the following species is required: an angiogenic factor; a growth factor (FGF); a growth factor (PDGF); an antibiotic; or a clotting factor.

## **III. Restriction and Species Election**

Applicants provisionally elect Group IV, Claims 1, 4-10, and 16-18 whose claims are drawn to a method of inhibiting the function of leukocytes in an animal, using an agonist of OX2, where the animal has a neurodegenerative condition, classified in class 514, subclass 21, for example, as discussed in the Office Action.

The Applicants further elect the following species as required by the Examiner:

- A. Neural tissue;
- B. Multiple sclerosis; and
- C. A steroid.